



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,750	10/19/2004	Daisuke Adachi	43890-698	4944
7590 Mc Dermott Will & Emery 600 13th Street N W Washington, DC 20005-3096			EXAMINER RAABE, CHRISTOPHER M	
			ART UNIT 2879	PAPER NUMBER
			MAIL DATE 12/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,750	ADACHI, DAISUKE	
	Examiner	Art Unit	
	Christopher M. Raabe	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's submission, filed October 3, 2007 have been entered and acknowledged by the examiner.
2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-3, 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashida et al. (WO 02/19369).

With regard to claim 1,

Ashida et al. disclose in at least figures 2 and 5a-f and pages 12-15 a method of manufacturing a plasma display panel (PDP), wherein a structure (71) of the plasma display panel is formed with photolithography; and wherein at least one of a display electrode, a black layer, an address electrode or a partition wall of the structures of the plasma display panel, in a process of forming the structure (71), is exposed using a plurality of photomasks (53A,B) with

the same pattern and a different aperture with of an exposure part, with a different amount of exposure.

While Ashida et al. do not disclose an exposure amount radiated from the light source when the exposure is made by a photomask with a longer aperture width is larger than exposure amount radiated from the light source when the exposure is made by a photomask with a shorter aperture width, wherein the exposure amount is determined by exposure intensity or exposure time, Ashida et al. do disclose in at least page 29 the thickness of the portion exposed with the longer aperture width to be greater than the portion exposed with the shorter aperture width. As it was well known to those of ordinary skill in the art at the time of the invention that layers of greater thickness require greater exposure, it would have been obvious to the same to utilize in the method of Ashida et al. an exposure amount radiated from the light source when the exposure is made by a photomask with a longer aperture width which is larger than exposure amount radiated from the light source when the exposure is made by a photomask with a shorter aperture width, wherein the exposure amount is determined by exposure intensity or exposure time in order to process the layers.

With regard to claim 2,

Ashida et al. disclose in at least figures 2 and 5a-f and pages 12-15 a method of manufacturing a plasma display panel, wherein a stripe structure (71) of the plasma display panel is formed with photolithography; wherein an exposure process of forming at least one of a display a electrode, a black layer, a address electrode, or a partition wall in structures of the plasma display panel, in a process of forming the structure (71), is processed twice using a photomask. wherein the exposure amount is determined by exposure intensity or exposure time.

While Ashida et al. do not disclose a first exposure amount and a second exposure amount to be different wherein the exposure amount is determined by exposure intensity or exposure time, Ashida et al. do disclose in at least page 29 the thickness of the portion exposed with the longer aperture width to be greater than the portion exposed with the shorter aperture width. As it was well known to those of ordinary skill in the art at the time of the invention that layers of greater thickness require greater exposure, it would have been obvious to the same to utilize in the method of Ashida et al. an exposure amount radiated from the light source when the exposure is made by a photomask with a longer aperture width which is larger than exposure amount radiated from the light source when the exposure is made by a photomask with a shorter aperture width, wherein the exposure amount is determined by exposure intensity or exposure time in order to process the layers.

With regard to claim 3,

Ashida et al. disclose a method of manufacturing a PDP as claimed in claim 2. While Ashida et al. do not disclose the differing exposure amounts, Ashida et al. do disclose the thickness of the thicker layer to be approximately two thirds the total thickness, leading to an obvious utilization of two thirds the total exposure utilizing the reasoning in the rejection of claim 2.

With regard to claim 5,

Ashida et al. disclose a method of manufacturing a PDP as claimed in claim 2. While Ashida et al. do not disclose the differing exposure amounts, Ashida et al. do disclose the thickness of the thicker layer to be approximately two thirds the total thickness, leading to an

obvious utilization of two thirds the total exposure utilizing the reasoning in the rejection of claim 2.

With regard to claims 6,7,

Ashida et al. disclose a method of manufacturing the PDP as claimed in claim 1,2, wherein at least one of the structure, immediately after the exposure, a progress speed of a cross linking reaction is different between at an edge part and a central part of the pattern shape, and the central part proceeds the edge part.

With regard to claims 8,9,

Ashida et al. disclose a method of manufacturing the PDP as claimed in claim 1,2 wherein the exposure process is a process for forming an address electrode and the exposure is made of a photosensitive Ag paste film.

With regard to claims 10,12,

Ashida et al. disclose a method of manufacturing the PDP as claimed in claim 1,2. While Ashida et al. do not disclose the exposure amount to be determined by controlling the exposure intensity, the fact that controlling the exposure intensity determines the exposure amount was well known to those of ordinary skill in the art at the time of the invention.

With regard to claims 11,13,

Ashida et al. disclose a method of manufacturing the PDP as claimed in claim 1,2. While Ashida et al do not disclose the exposure amount to be determined by controlling the exposure

time, the fact that controlling the exposure time determines the exposure amount was well known to those of ordinary skill in the art at the time of the invention.

With regard to claims 14,15,

Ashida et al. disclose a method of manufacturing the PDP as claimed in claim 1,2. While Ashida et al. do not disclose the exposure amount to be determined by controlling the exposure intensity or exposure time, the fact that controlling the exposure intensity and time determines the exposure amount was well known to those of ordinary skill in the art at the time of the invention.

With regard to claims 16,17,

Ashida et al. disclose a method of manufacturing a PDP as claimed in claim 1,2. While Ashida et al. do not disclose the differing exposure amounts, Ashida et al. do disclose the thickness of the layer exposed by the photomask with the longer aperture width to be approximately two thirds the total thickness, leading to an obvious utilization of two thirds the total exposure utilizing the reasoning in the rejection of claim 1,2.

With regard to claim 18,

Ashida et al. disclose a method of manufacturing the PDP as claimed in claim 2. While Ashida et al. do not disclose the differing exposure amounts, Ashida et al. do disclose the thickness of the first layer exposed to be approximately two thirds the total thickness and the thickness of the second layer exposed to be one third the total thickness, leading to an obvious utilization of two thirds of a total amount of exposure required for the first exposure and one third

of the exposure amount required for the second exposure, utilizing the reasoning in the rejection of claim 2.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Application/Control Number:
10/511,750
Art Unit: 2879

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



CR


JOSEPH WILLIAMS
PRIMARY EXAMINER